Highlights of Study Findings.
Gladstone Associates.

C.B.D.

GLADSTONE ASSOC.

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HIGHLIGHTS OF STUDY FINDINGS

1. MARKET SUPPORTS FOR DOWNTOWN BOSTON OFFICE SPACE PRESENT A MIXED OUTLOOK FOR THE SHORT TERM. WE RECOMMEND THAT THE OFFICE COMPONENT BE CONSTRUCTED IN TWO PHASES. PHASE I SHOULD CONSIST OF 200,000 TO 250,000 SQUARE FEET PLANNED FOR 1974-1975. THE SECOND PHASE PROGRAM TO BE UNDERTAKEN IN 1976-1980 SHOULD BE PLANNED TO ACCOMMODATE 500,000 TO 1,000,000 SQUARE FEET OF ADDITIONAL OFFICE SPACE. AN ADD-ON OF ANOTHER 500,000 SQUARE FEET SHOULD BE ALLOWED FOR TO ACCOMMODATE PRIME TENANT NEEDS IN THE FUTURE.

2. THE OFFICE BUILDING SHOULD CONSIST OF TEN FLOORS WITH A FLOOR MODULE SIZE OF 25,000 SQUARE FEET.

3. THE AVERAGE RENTAL RATE SHOULD BE $8.50 PER SQUARE FOOT BASED ON THE NEW YORK EVALUATION METHOD.

4. CENTRAL BOSTON BUILDINGS WHICH ARE PRESENTLY UNDER CONSTRUCTION ARE RENTING FOR UP TO $9.50 PER SQUARE FOOT.

5. THE AVERAGE FLOOR MODULE SIZE FOR SIX BUILDINGS IN CENTRAL BOSTON PRESENTLY UNDER CONSTRUCTION IS 25,000 SQUARE FEET. THE AVERAGE FLOOR MODULE SIZE FOR SELECTED EXISTING BUILDINGS IN CENTRAL BOSTON IS ONLY SLIGHTLY LESS AT 24,000 SQUARE FEET.

6. THE LOCATION AND UNIQUENESS OF THE PIER IV SITE SHOULD ATTRACT HIGHLY CREATIVE TENANTS. THERE MIGHT BE SOME RESISTANCE TO THE $8.50 PER SQUARE FOOT RENTAL BUT A QUALITY OFFERING AND AGGRESSIVE MARKETING TECHNIQUES CAN OVERCOME THIS OBSTACLE.

7. SINCE 1960, OVER 17.5 MILLION SQUARE FEET OF OFFICE SPACE HAS BEEN CONSTRUCTED IN METROPOLITAN BOSTON.

8. FOR THE 1960-1965 PERIOD, THE AVERAGE ANNUAL CONSTRUCTION OF OFFICE SPACE IN THE CITY OF BOSTON WAS 506,000 SQUARE FEET. THIS INCREASED TO 1,000,000 SQUARE FEET ANNUALLY FOR THE 1966-1970 PERIOD.

9. SINCE 1965, THERE HAS BEEN A NET INCREMENT (ALLOWING FOR DEMOLITION) OF 3.0 MILLION SQUARE FEET OF PRIVATE OFFICE SPACE IN CENTRAL BOSTON.

[illegible]

10. DURING THE 1971-1972 PERIOD THERE WILL BE AN ADDITIONAL NET INCREMENT OF 3.7 MILLION SQUARE FEET OF OFFICE SPACE IN CENTRAL BOSTON BASED ON PLANNED CONSTRUCTION.

11. AN ADDITIONAL 3.5 MILLION SQUARE FEET OF PRIVATE OFFICE SPACE IS SCHEDULED TO BE COMPLETED IN 1973.

12. SINCE 1968 THERE HAS BEEN A SIGNIFICANT UPGRADING OF THE QUALITY OF OFFICE SPACE IN CENTRAL BOSTON. IN 1968, ONLY 19 PERCENT OF SURVEYED OFFICE SPACE WAS CLASSIFIED AS QUALITY CLASS A. BY 1970 A DRAMATIC CHANGE WAS OBSERVED IN CENTRAL BOSTON; 29 PERCENT OF THE OFFICE SPACE IS NOW CLASS A QUALITY.

13. THE NUMBER OF PRIVATE OFFICE USING EMPLOYEES IN BOSTON HAS INCREASED FROM 225,900 IN 1960 to 338,900 IN 1970. FURTHERMORE, IT IS PROJECTED THAT PRIVATE OFFICE USING EMPLOYMENT WILL INCREASE TO 394,600 BY 1975 AND SUBSEQUENTLY TO 454,300 BY 1980.

14. PRIVATE OFFICE USING EMPLOYMENT IN METROPOLITAN BOSTON HAS BEEN INCREASING AT A RATE EXCEEDING 3 PERCENT ANNUALLY SINCE 1960. THIS INCREASE IN PRIVATE OFFICE USING EMPLOYMENT WILL CREATE DEMAND FOR NEW OFFICE SPACE DURING THE DECADE AHEAD.

15. BETWEEN 1970 AND 1975 THERE WILL BE AN ANNUAL DEMAND FOR 1,800,000 SQUARE FEET OF PRIVATE OFFICE SPACE IN METROPOLITAN BOSTON. IN THE 1975-1980 PERIOD THERE WILL BE AN ANNUAL DEMAND FOR 1,900,000 SQUARE FEET OF PRIVATE OFFICE SPACE.

16. FOR THE 1971-1972 AND 1973-1974 PERIODS THERE WILL BE AN OVER-SUPPLY OF ALMOST 4 MILLION SQUARE FEET OF OFFICE SPACE IN CENTRAL BOSTON. ESTIMATED DEMAND FOR THESE TWO PERIODS ACCOUNT FOR JUST OVER 4-1/4 MILLION SQUARE FEET OF PRIVATE OFFICE SPACE WHEREAS NET INCREMENTS OF OFFICE SPACE ARE ESTIMATED TO AMOUNT TO OVER 7-1/2 MILLION SQUARE FEET.

17. OF THE 1,800,000 SQUARE FEET OF OFFICE SPACE DEMAND IN THE 1970-1975 PERIOD THERE WILL BE AN AVERAGE ANNUAL DEMAND FOR APPROXIMATELY 100,000 SQUARE FEET OF SPACE WHICH MAY BE TAPPED AT THE PIER IV LOCATION.

18. THE PRIVATE OFFICE VACANCY RATE IN CENTRAL BOSTON NOW IS ONLY 1.7 PERCENT. THIS IS A POSITIVE INDICATOR OF THE PRESENT STRENGTH OF THE CENTRAL BOSTON OFFICE MARKET.

19. IT IS PROJECTED THAT THE PRIVATE OFFICE VACANCY RATE IN CENTRAL BOSTON WILL RISE TO BETWEEN 5 AND 10 PERCENT IN THE PERIOD IMMEDIATELY AHEAD.

SINCE 1960, OVER 17.5 MILLION SQUARE FEET OF NEW OFFICE SPACE HAS BEEN CONSTRUCTED IN THE BOSTON METROPOLITAN AREA. SINCE 1967 EVERY YEAR HAS WITNESSED AN ADDITION OF AT LEAST TWO MILLION SQUARE FEET.

Until the beginning of the 1960's, Boston was a city of old office space. Recently completed construction in both Boston and suburban areas is rapidly changing this picture. What was once a complex of 50 year old offices is now a modern office center.

Since 1960, over 17.5 million square feet of office space has been constructed in metropolitan Boston. Almost two-thirds of this new construction has taken place in the City of Boston. The construction pace in the city during the 1967-1970 period has exceeded 1.5 million sq. ft. annually, as evidenced in Table 1 below.

Table 1 ESTIMATED OFFICE BUILDING CONSTRUCTION[1/]

METROPOLITAN BOSTON, 1960-1970

Sq. Ft. (000)

Year	City of Boston	Remainder of Metropolitan Area	Total	Boston as Percent of Total
1960	110	260	370	30%
1961	140	250	390	36
1962	110	180	290	38
1963	1,740	660	2,400	73
1964	138	460	598	23
1965	800	560	1,360	59
1966	570	370	840	61
1967	3,490	430	3,920	89
1968	1,580	950	2,530	62
1969	1,150	1,030	2,180	55
1970	1,510	1,040	2,550	59
TOTAL	11,338	6,190	17,528	65%

1/ Data are for privately owned buildings only; as reported in Massachusetts Department of [illegible] Real Estate Investor.

AVERAGE ANNUAL CONSTRUCTION OF OFFICE SPACE IN THE CITY OF BOSTON FOR THE 1966 1970 PERIOD ACCOUNTED FOR 1.7 MILLION SQUARE FEET.

In terms of average annual pace, private office construction in the Bost metropolitan area has greatly increased during the last four years.

For the 1960-1965 period average annual construction of office space in the City of Boston was 506,000 square feet and just under 400,000 square feet for the remainder of the metropolitan region. Both of these are substantial ye ly increments. However, for the 1966-1970 period, average annual office construction in both the City of Boston and the metropolitan area has increased t even higher levels as noted in Table 2.

Table 2 · AVERAGE ANNUAL PRIVATE CONSTRUCTION PACE METROPOLITAN BOSTON, 1960-1970

Period	Average Annual Construction in Boston (sq. ft.)	Average Annual Construction in Remainder of Metropolitan Area
1960-1965	506,000 S.F.	395,000 S.F.
1966-1970	1,660,000 S.F.	764,000 S.F.

Source: Gladstone Associates

Average office space construction totalled 1,660,000 and 764,000 square feet annually for the City of Boston and the remainder of the metropolitan area respectively, over the past five years. This is an average annual [illegible] construction in excess of 1,100,000 square feet in the city and 350,000 [illegible]

feet in the remainder of the metro area over the substantial previous annual level.

SINCE 1965 THERE HAS BEEN A NET INCREMENT OF 3,074,000 SQUARE FEET OF PRIVATE OFFICE SPACE IN CENTRAL BOSTON. NEW CONSTRUCTION HAS AVERAGED 800,000 SQUARE FEET ANNUALLY.

Since 1965 there has been 4.8 million square feet of private office construction in Central Boston. During this same period 1.7 million square feet of office space was removed from the market by demolition. The inter-relationship between office construction and demolition during the 1965-1970 period resulted in a cumulative net increment of 3,074,000 square feet of office space in Central Boston, as displayed below in Table 3. The average annual net increment for Central Boston has been slightly more than 500,000 square feet as indicated.

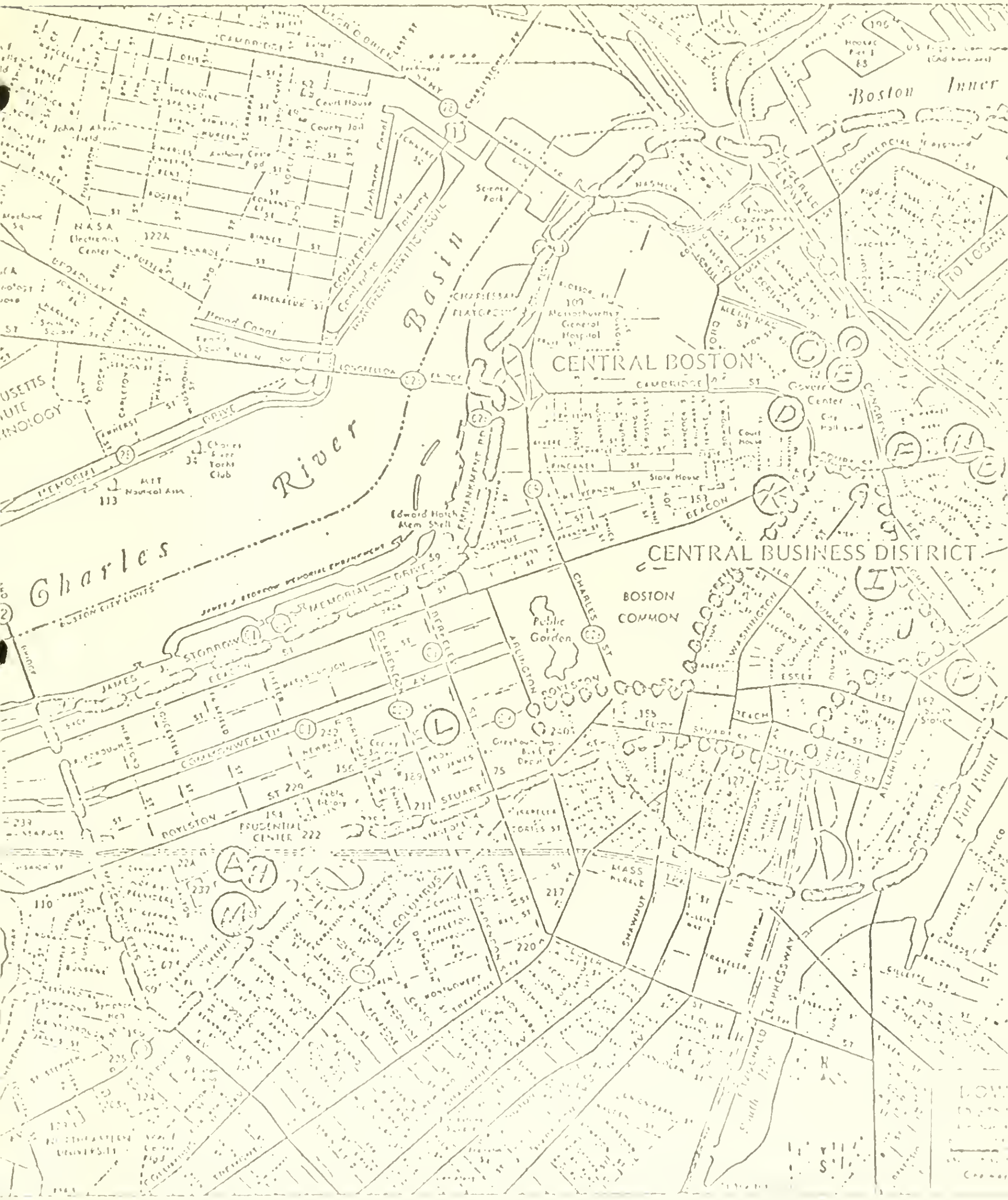
Table 3 ESTIMATED PRIVATE OFFICE SPACE CONSTRUCTION AND DEMOLITION CENTRAL BOSTON[1], 1965-1970

Year	Construction Sq.Ft.	Demolition Sq.Ft.	Net Increment
1965	800,000	91,000	709,000
1966	570,000	64,000	506,000
1967	223,000	428,000	neg.205,000
1968	1,280,000	126,000	1,154,000
1969	469,000	176,000	293,000
1970	1,460,000[2]	823,000	637,000
TOTAL	4,802,000	1,708,000	3,074,000

1. For delineation of Central Boston see facing map.

2. Includes Prudential Tower #2 due to open in late 1970.

Source: [illegible]


CENTRAL BOSTON
CENTRAL BUSINESS DISTRICT
Charles River Basin
BOSTON COMMON
Public Garden
Boston Inner
Massachusetts General Hospital
State House
Court House
Government Center
City Hall
Science Park
NASA Electronics Center
MIT Nautical Ass.
Edward Hatch Mem. Shell
PRUDENTIAL CENTER
MEMORIAL DRIVE
STORROW
COMMONWEALTH AV
BOYLSTON
BEACON
CAMBRIDGE ST
WASHINGTON
CHARLES ST
ARLINGTON
DARTMOUTH
COLUMBUS
SHAWMUT
Fort Point
TO LOGAN

FOR THE 1971-1972 PERIOD IT IS ESTIMATED THAT THERE WILL BE A NET INCREMENT OF 3,698,000 SQUARE FEET OF OFFICE SPACE IN CENTRAL BOSTON, DRAMATICALLY ACCELERATING THE FAST PACE EXPERIENCED IN RECENT YEARS.

Presently under construction in Central Boston are private office buildings which will account for 4,955,000 square feet of new office space by 1972 as shown in Table 4 below. It is estimated that 1,255,000 square feet of office space will be removed by demolition during this period. Resulting in a net office increase of 3,698,000 square feet in Central Boston. On an annual basis this equals 1,849,000 square feet in Central Boston. On an annual basis this equals 1,849,000 sq. ft. compared with 500,000 square feet annually for the previous six years.

Table 4 PRIVATE OFFICE SPACE CONSTRUCTION AND DEMOLITION CENTRAL BOSTON, 1971-1972

Year	Construction Sq.Ft.	Estimated Demolition Sq.Ft.	Net Office Space Increase: Yearly	Net Office Space Increase: Cumulative
1971	2,155,000	1,192,000	963,000	963,000
1972	2,800,000	65,000	2,735,000	3,698,000

Source: Gladstone Associates

AN ADDITIONAL THREE AND ONE-HALF MILLION SQUARE FEET OF PRIVATE OFFICE SPACE IS SCHEDULED TO BE COMPLETED IN CENTRAL BOSTON DURING 1973.

In addition to the 4,955,000 square feet of private office space to be constructed in 1971-1972, an additional 3.5 million sq. ft. of private office space is scheduled for 1973. The 8,500,000 sq. ft. of office space either under construction or proposed will be contained in 15 buildings.

Table 5 — NEW PRIVATE OFFICE BUILDINGS UNDER CONSTRUCTION AND PROPOSED 1/ 1971-74

Year	Number of Buildings	Sq. Ft. of Office Space
1971 2/	6	2,155,000 S.F.
1972 2/	3	2,820,000 S.F.
1973	6	3,475,000 S.F.
TOTAL	15	8,450,000 S.F.

ESTIMATED PRIVATE OFFICE DEMOLITION CENTRAL BOSTON 1971-1972

Year	Demolition (Sq.Ft.)
1971	1,192,000 S.F.
1972	65,000 S.F.
TOTAL	1,257,000 S.F.

1/ Very high probability.

2/ Does not include the Christian Science Church complex of 410,000 s.f. to be used entirely for Church activities.

Included in the 15 office buildings above are the First National Bank with 1,100,000 square feet of office space, the Keystone Buildings with 775,000 square feet of office space, Employees'-Commercial Building with 1,100,000 square feet of office space, the John Hancock Building with 1,700,000 square square feet of office space and the Cabot, Cabot & Forbes Building with 900,000 square feet of office space

feet of office space and the Cabot, Cabot & Forbes Building with 900,000 square feet of office space. For a complete list of buildings see Table in the Appendix. Also under construction is the Christian Science Church Administrative Building with a total of 410,000 square feet of office space. However, it is expected that this office space will be used for church activities only and it is not considered competitive.

One additional building recently announced will augment proposed downtown office space construction substantially, if completed. A proposed two-million square foot structure is being planned for the Dewey Square area, next to South Station.

There are also two major buildings in the public sector either under construction or planned. The Federal Reserve Building and the Massachusetts Health, Education and Welfare Building, totalling almost 2,000,000 square feet of office space are expected to be completed by 1974. The completion of these two buildings should keep government occupancy of office space in private buildings down in the short term.

SINCE 1968 THERE HAS BEEN A SIGNIFICANT UPGRADING OF THE QUALITY OF OFFICE SPACE IN CENTRAL BOSTON.

Until the 1960's, Boston was a city of old office space. However, the great amount of construction during the last 10 years has significantly upgraded the overall quality of office space in Central Boston. During this period, a number of Class C and D buildings were also removed from inventory by demolition. It is expected that this trend in upgrading of office space will continue with the completion of new buildings and continued demolitions. Recent trends are depicted in Table 6. For definition of the four quality categories see Table 16in Appendix.

Table 10 ESTIMATED CHANGES SPACE QUALITY CATEGORY 1/
CENTRAL BOSTON, 1968-1970

Year	Shifts	Class A	Class B	Class C	Class D	Total
		Sq. Ft. In Class (000)				
1968		4,000	4,500	9,000	3,500	21,000
	Add: New "A" space	+3,000				
	Less: "A" space downgraded	- 400				
	Net Increase in "A" space	2,600				+ 2,600
	Add: "B" space downgraded from "A" space		+ 400			
	Add: "B" space improved from "C" space		+ 500			
	Less: "B" space downgraded to "C" space		- 400			
	Net Increase in "B" space		500			+ 500
	Add: "C" space downgraded from "B" space			+ 400		
	Less: "C" space improved to "B" space			- 500		
	Less: "C" space downgraded to "D" space			- 500		
	Net Decrease in "C" space			600		- 600
	Add: "C" space downgraded to "D" space				+ 500	
	Less: "D" space demolished				-1,100	
	Net Decrease in "D" space				600	- 600
1970		6,600	5,000	8,400	2,900	22,900

PERCENTAGE OF SQ. FT. IN EACH CLASS 2/

Year	Class A	Class B	Class C	Class D
1968	19%	21%	43%	17%
1970	29%	22%	37%	13%

1/ Based on field surveys, quality class ratings and demolition records.
2/ Total does not add to 100% due to the rounding of numbers.
Source: Gladstone Associates, 1970.

In 1968 only 19 percent of surveyed office space in Central Boston was categorized as Quality Class A. Simultaneously, 50 percent of the office space in Central Boston was categorized as either Quality Class C or D as space.

By 1970 a dramatic change had occurred in Central Boston. Twenty-nine percent of the office space surveyed in 1970 was classified as Quality Class A. This amounted to a 10 percent increase or more than 2,500,000 sq. ft. of additional A quality space. Furthermore, in excess of 50 percent of the office space surveyed was either Quality Class A or B.

Quality Class A office space commands the highest price per square foot and is desired by growing and image conscious firms. Quality Class B office space is also desirable and commands moderate to high rentals.

FIRST-CLASS OFFICE SPACE IN CENTRAL BOSTON IS ATTRACTING RENTS OF UP TO $9.50 PER SQUARE FOOT.

In recent years there has been a significant increase in rental rates for Central Boston buildings as displayed in Table 7 below. Space completed in 1968 charged rentals of under $8.00 per square foot. By 1969, office space in the above $8 per square foot category was successfully being marketed.

Recently completed buildings, such as the Boston Company Building, command prices of up to $9 per square foot and buildings still under construction are charging rents from $8 to $9.50 per sq. ft. Even buildings outside of the traditional downtown area, such as the John Hancock Tower and the Prudential South Tower, are leasing at rates of above $8.50 per sq. ft.

Table 7 SELECTED BUILDINGS WITH RENTAL INFORMATION
CENTRAL BOSTON, 1970

Structure	Occupancy Date		Rent per Sq. Ft. 1/
New England Merchants	1968		$6.80 - $8.00
100 Charles River Park	1968		$7.00 - $7.50
Three Center Plaza	1969		$7.50 - $9.00
Boston Company Building	1970		$7.00 - $9.00
		average	$7.08 - $8.38
Structure	**Completion Date**		**Rent Per Sq. Ft. 1/**
Prudential South	1970		$7.50 - $8.50
First National Bank	1971		$7.75 - $9.50
Keystone Building	1971		$8.00 - $9.00
Employees' Commercial Union	1972		$8.00 - $9.00
John Hancock Building	1972		$8.00 - $8.75
Cabot, Cabot & Forbes Building	1973		$8.00 - $9.50
		average	$7.88 - $9.04

1/ Based on New York evaluation method.

Source: Gladstone Associates

THE UNIQUENESS OF THE PIER IV SITE SHOULD ATTRACT HIGHLY CREATIVE TENANTS. MARKET SUPPORTS FOR $8.50 PER SQUARE FOOT RENTALS FROM THIS GROUP WILL REQUIRE A FIRST-CLASS BUILDING AND AGGRESSIVE MARKETING.

The uniqueness of the Pier IV site and a first-class offering, will lend itself to attracting highly creative tenants such as architects, engineers and consultants. In the past, these types of tenants have shown resistance to the marketing of high-priced, downtown office buildings. Many highly creative firms have located in the suburbs in the past to take advantage of desired new space but at lower rentals. However, the rental variance between downtown and suburban office buildings has decreased from $1.50 per square foot in the mid-1960's to approximately 75¢-85¢ per square foot at present. Furthermore, several engineering firms, accountants and consultants have leased new downtown office space.

Considering the small difference in rents between downtown and suburban locations it is our judgment that downtown offerings can now successfully compete for the highly creative tenant with a unique location and first-class building.

PRIVATE OFFICE USING EMPLOYMENT IN BOSTON HAS INCREASED FROM 255,900 IN 1960 TO 338,900 IN 1970. OFFICE EMPLOYMENT IS EXPECTED TO INCREASE DURING THE DECADE AHEAD.

In 1960, there were 1,074,000 employees in metropolitan Boston. Approximately 24 percent of these employees, or 255,900, were private office using. By 1970 total employment in metropolitan Boston had increased to 1,31[illegible], and private office using employment had increased to 338,900. In 1970 private office using employees accounted for just under 20 percent of total employment in metropolitan Boston.

It is projected that private office using employment will increase to 394,600 by 1975 and 454,300 by 1980. Private office using employees will account for 26.9 percent and 27.9 percent respectively, of total employment in metropolitan Boston.

Table 8 PRIVATE OFFICE USING EMPLOYMENT IN BOSTON METRO, 1960-1980

Year	Total Salaried Non-agricultural Employment	Private Office Using Employment	Percent Private Office Employment
1960	1,074,700	255,900	23.8%
1970	1,313,000	338,900	25.8
1975	1,467,000	394,600	26.9
1980	1,630,000	454,300	27.9

Source:Gladstone Associates

The increase in private office using employment is a measure of the demand for new office space. Since 1960 there has been a substantial increase in private office using employment in metropolitan Boston and consequently a substantial increase in the demand for office space. Average annual increases in office-occupying jobs are expected to continue for the years ahead, as indicated above in Table 8. Furthermore, national trends and projections indicate that the service sector (office using employees) of the economy is now the leading employment category and the fastest growing.

PRIVATE OFFICE USING EMPLOYMENT HAS BEEN INCREASING AT A RATE EXCEEDING 3 PERCENT ANNUALLY SINCE 1960 IN METROPOLITAN BOSTON.

Since 1960 private office using employment has been increasing at a rate exceeding 3 percent annually. It is expected that this substantial rate of increase will continue in the decade ahead. Between 1970 and 1980 private office using employment is expected to increase by more than 115,000. This increase in private office using employment will create demand for new office space.

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Table 9

PRIVATE OFFICE USING EMPLOYMENT
BOSTON SMSA 1960-1980

Year	Private Office Using Employment
1960	255,900
1970	338,900
1975	394,600
1980	454,300

Period	Average Annual Change
1960-1970	3.2%
1970-1975	3.3%
1975-1980	3.0%

Source: Gladstone Associates

Generally the projections presented in Table 9 above are conservatively formulated to take the present economic slowdown into account.

THERE WILL BE AN ANNUAL DEMAND FOR 1.8 MILLION SQUARE FEET OF PRIVATE OFFICE SPACE IN METROPOLITAN BOSTON IN THE COMING DECADE.

The average annual demand for private office space in metropolitan Boston for the 1960-1970 period was approximately 1,025,000 square feet. This was based on an average annual increase of 8,300 private office using employees and a square feet per employee factor. For the 1970-1975 period there will be an annual demand for approximately 1,800,000 square feet of private office space. This is based on an average annual increase of 11,140 private office using employees. Furthermore, it is projected that for the 1975-1980 period there will be an annual demand for more than 1,900,000 square feet of private office space. Table 10 following exhibits the projected demand for office space.

Table 10 AVERAGE ANNUAL DEMAND FOR PRIVATE OFFICE SPACE
BOSTON SMSA 1960-1980

	Private Office Using Employees (Average Annual Increase)	X	Sq. Ft. per Employee	=	Average Annual Demand For Private Office Space
1960-1970	8,300		150 sq.ft.		1,245,000 sq.ft.
1970-1975	11,140		160 sq.ft.		1,782,400 sq.ft. (approx. 1.8 million)
1976-1980	11,940		165 sq.ft.		1,970,100 sq.ft.

Source: Gladstone Associates

SINCE 1965 DEMAND FOR OFFICE SPACE IN CENTRAL BOSTON HAS EXCEEDED THE ANNUAL NET INCREMENTS OF OFFICE SPACE. HOWEVER, IN THE COMING YEARS AHEAD (1971-1974) IT IS EXPECTED THAT NEW NET INCREMENTS OF OFFICE SPACE WILL EXCEED THE DEMAND FOR NEW OFFICE SPACE.

The accelerated pace of construction since 1965 has been readily absorbed in Central Boston. Between 1965 and 1970 there was a great amount of construction but also a great amount of demolitions thus reducing the net increment of office space to a more moderate level.

As indicated in Table 11 below, for the 1971-1972 and 1973-1974 period there will be an over-supply of office space entering the market. This over-supply of office space will lead to increases in the Central Boston vacancy rate.

Table 11 ABSORPTION OF PRIVATE OFFICE SPACE IN CENTRAL BOSTON, 1965-1974

Period	Net Increments of Office Space (in thousands)	Incremental Demand for Office Space 1/ (in thousands)	Under Supply of Office Space (in thousands)	Over Supply of Office Space (in thousands)	Cumulative Under Supply (+) or Over Supply (-)
1965-1966	1,215 s.f.	1,500 s.f.	285 s.f.	---	+ 285 s.f.
1967-1968	929 s.f.	1,500 s.f.	571 s.f.	---	+ 856 s.f.
1969-1970	930 s.f.	1,500 s.f.	570 s.f.	---	+1,426 s.f.
1971-1972	3,698 s.f.	2,160 s.f.	---	1,533 s.f.	- 112 s.f.
1973-1974	5,000 s.f. 2/	2,160 s.f.	---	2,840 s.f.	-2,952 s.f.
Total	11,772 s.f.	8,820 s.f.	1,426 s.f.	4,378 s.f.	-

1/ Based on increases in private office using employment as shown in table with central Boston's capture estimated at 60%.

2/ Estimate based on highly probable building construction and demolitions.

Source: Gladstone Associates

Although the demand for office space will increase to over 2,100,000 square feet per period after 1970, the net increment of new office space will increase to almost 4.5 million square feet per period, or in excess of 2 million sq. ft. per annum.

THE PRIVATE OFFICE BUILDING VACANCY RATE IN CENTRAL BOSTON IS ONLY 1.7 PERCENT.

The private office vacancy rate in Central Boston has been steadily declining from a high of 10.9 percent in 1964. Even as late as October 1967, the vacancy rate stood at 5 percent. Presently, the private office vacancy rate for Central Boston is at an all time low of 1.7 percent as indicated in Table 12.

Table 12 PRIVATE OFFICE VACANCY RATE AND GOVERNMENT OCCUPANCY 1/

1964-1970 CENTRAL BOSTON

Date	No. Bldgs. Reporting	Total Square Feet of Rentable Space	Total Sq.Ft. Of Vacant Space	Percent Vacant	Total Gov't Tenancy in Competitive Bldgs.	Gov't Occupancy In Competitive Bldgs. As % of Total Occupancy
Jan '64	100	10,403,407	1,142,853	10.9%	731,289	7.3%
Apr '65	128	11,735,726	985,123	8.4	816,560	6.9
Oct '67	153	13,365,079	665,712	5.0	473,311	3.5
Oct '68	163	14,898,795	404,925	2.7	516,057	3.5
Oct '69	166	15,790,142	372,234	2.4	686,914	4.4
Apr '70	155	15,271,935	252,389	1.7	633,249	4.1

1/ For competitive, BOMA member buildings

Source: BOMA Association Office Vacancy Survey

A declining vacancy rate occurring simultaneously with the construction of several million square feet of office space attests to the strength of the Boston office market. For the last 3 or 4 years the Central Boston office market has demonstrated a depth of demand as new buildings have been quickly rented. Many of the new buildings such as the Keystone, First National Bank Building, and Prudential Tower are more than 80 percent leased. Furthermore, the Boston Company Building, Center Plaza III, and the Bulfinch Building all of which entered the market in 1970 are virtually fully leased. However, several buildings which are due to enter the market in 1972-1973 are having some difficulty in obtaining leases and two major buildings, the Cabot, Cabot & Forbes Building and the proposed Dewey Square development are being constructed without any major tenants.

Considering the great amount of office space coming on the market between 1970 and 1973, the construction of an office building should not occur until the 1974-1975 period. An office building of approximately 200,000 to 250,00 square feet -- 2 years of office demand -- could successfully be marketed at the site at that time.

THE AVERAGE FLOOR MODULE SIZE OF MAJOR BUILDINGS PRESENTLY UNDER CONSTRUCTION IN CENTRAL BOSTON IS 25,000 SQUARE FEET.

The six major buildings presently under construction in Central Boston have an average floor module size of 25,000 square feet as shown in Table 13. The average floor module size for nine selected buildings in Central Boston is only slightly less at 23,800 square feet.

In order to compete successfully with buildings presently under construction in Central Boston a competitive floor module size, acceptable to

Table 13 FLOOR MODULE SIZES FOR SELECTED BUILDINGS, METROPOLITAN BOSTON, 1970

Name	No. of Floors	Gross Floor Area (sq. ft.)	Floor Module Size (sq. ft.)
Central Boston			
New England Merchants	40	820,000 s.f.	20,500 s.f.
100 Charles River Park	9	130,000	14,450 s.f.
Three Center Plaza	8	250,000	31,250 s.f.
Boston Company Building	41	685,000	16,700 s.f.
Royal Globe Building	5	80,000	16,000 s.f.
Bulfinch Plaza	7	75,000	10,700 s.f.
Sheraton Building	13	304,000	23,400 s.f.
John Hancock	18	1,004,000	55,800 s.f.
Prudential Center	53	1,350,000	25,500 s.f.
		AVG.	23,800 s.f.
Central Boston (under construction)			
First National Bank	37	1,100,000	29,700 s.f.
Keystone Building	32	775,000	24,200 s.f.
Employees' Commercial Union	37	1,100,000	29,700 s.f.
Prudential South	26	450,000	17,300 s.f.
John Hancock Tower	60	1,700,000	28,300 s.f.
C.C.F. Building	44	900,000	20,500 s.f.
		AVG.	24,950 s.f.
Suburbs			
Central Plaza	14	130,000	9,300 s.f.
Cambridge Gateway	16	220,000	13,800 s.f.
400 Totem Pond Road	4	80,000	20,000 s.f.
402 Totem Pond Road	4	80,000	20,000 s.f.
235 Wyman St.	3	90,000	30,000 s.f.
Boylston Executive Park	5	115,000	23,000 s.f.
20 Walnut St.	4	30,000	7,500 s.f.
		AVG.	17,700 s.f.

Source: Gladstone Associates

full floor user requirements, is necessary. Furthermore, a floor module size of 25,000 square feet lends itself to easy division for less than full floor users. The 25,000 square foot module size can accommodate full floor use or smaller tenant needs by easy division into sections.

THE PRIVATE OFFICE VACANCY RATE FOR CENTRAL BOSTON IS EXPECTED TO RISE TO BETWEEN 5 AND 10 PERCENT IN THE 1971-1972 PERIOD AND REMAIN AT THAT LEVEL THROUGH 1975. WEAKER RENTAL MARKETS THAN NOW EXIST MAY BE EXPECTED FOR THE SHORT-TERM.

An additional eight million square feet of private office space is expected to enter the Central Boston market in the next 2 or 3 years. This great increment -- coupled with currently sluggish economic conditions -- will cause private office vacancy rates to rise in the near future. Office supply and demand will approach an equilibrium level between the 5 and 10 percent vacancy level as indicated in Table 14. Although considerably higher than the present vacancy level of 1.7 percent it is still an acceptable level and should not lead to any concessions or lowering of rental rates, if the lower rate can be sustained.

Table 14 PRIVATE OFFICE SPACE SUPPLY AND DEMAND INTERRELATIONSHIP AT ASSUMED VACANCY LEVELS FOR CENTRAL BOSTON, 1970-1975

1971-1972	Alt. A Assumes 1.7% Vacancy	Alt. B Assumes 5.0% Vacancy	Alt. C Assumes 10.% Vacancy
Approximate 1970 Supply of Office Space (millions of s.f.)	23.5	23.5	23.5
+ New Net Increments (millions of s.f.)	4.7	4.7	4.7
= Total Office Supply (millions of sq. ft.)	28.2	28.2	28.2
x Assumed Vacancy Rate	1.7	5.0	10.0
= Amount Vacant (millions of sq. ft.)	.5	1.4	2.8
- New Office Space Demand (millions of sq. ft.)	2.2	2.2	2.2
Over Supply of Office Space (millions of sq. ft.)	2.0	1.1	-.3 1/

1973-1975	Alt. A Assumes 1.7% Vacancy	Alt. B Assumes 5.0% Vacancy	Alt. C Assumes 10.% Vacancy
Approximate 1972 Supply of Office Space (millions of s.f.)	28.2	28.2	28.2
+ New Net Increments (millions of s.f.)	6.0	6.0	6.0
= Total Office Supply (millions of sq. ft.)	34.5	34.5	34.5
x Assumed Vacancy Rate	1.7	5.0	10.0
= Amount Vacant (millions of sq. ft.)	.6	1.7	3.5
- New Office Space Demand (millions of sq. ft.)	3.3	3.3	3.3
Over Supply of Office Space (millions of sq. ft.)	2.1	1.0	-.8 1/

1/ Under supply of office space at 10.% Vacancy Rate.

THE AVERAGE ANNUAL DEMAND FOR OFFICE SPACE AT THE PIER IV LOCATION IS ESTIMATED AT APPROXIMATELY ONE HUNDRED THOUSAND SQUARE FEET.

For the 1970-1975 period there will be an average annual demand for 1.8 million square feet of office space in metropolitan Boston. Experience shows that Central Boston can capture approximately 60 percent of the metropolitan demand for office space or just over one million square feet per year. Furthermore, in our judgment, the Pier IV location can reasonably expect to capture 10 percent of the Central Boston demand or 6 percent of the metropolitan demand for office space, or approximately 100,000 square feet per year as portrayed in Table 15 below.

Table 15 AVERAGE ANNUAL DEMAND FOR OFFICE SPACE BOSTON SMSA 1970-1975

Area	Percentage of SMSA Annual Demand for Office Space	Average Annual Demand for Office Space Sq.Ft. (000)
Boston SMSA	100%	1,782 S.F.
Central Boston	60%	1,069 S.F.
Fort Point Channel	6%	107 S.F.

Recommended Pier IV Office Program

1. 1974-75 — 200-250,000 S.F.
2. Test market response at this time.
3. Attempt to secure major prime tenant -- plan should accomodate this option.
4. 1976-80
   a. Program without prime tenant: 500,000 to 1,000,000 S.F.
   b. Add-on for prime tenant: 500,000 S.F. ±

Source: Gladstone Associates, 1970.

Table 16 OFFICE QUALITY RATINGS: CRITERIA USED FOR EACH OF THE FOUR QUALITY CATEGORIES

"A" Quality. This quality building was recently constructed. Entrances are well-lighted and lobbies spacious. Elevator service is efficient and automatic. The buildings have central air conditioning and are heated by forced air or a heat exchange air handling device. They are uniformly well-maintained.

"B" Quality. Buildings in this quality class are generally older than those in "A" quality. Entrances are not as well-lighted or spacious as the "A" quality buildings. Efficient and automatic elevator service is provided. Central air conditioning and heating systems are modern and effective. Quality of maintenance is high. Some older but fully and effectively remodeled buildings are included in "B" quality.

"C" Quality. This quality building is either partially air-conditioned or has window units or has no air-conditioning whatsoever. Elevator service is poor to fair. Entrances are typically poorly lighted and poorly planned. These are older buildings and the maintenance level varies greatly. These buildings have not been re-modeled or have been remodeled partially or ineffectively. The general appearance is poor.

"D" Quality. This quality building has no central air con-ditioning, or limited window units. It typically has poor elevator service, often manual. A tenant mix is a factor in this quality rating. Many non-office or quasi industrial concerns are located in this quality building. Buildings are usually dirty and poorly maintained.

Table 17

MAJOR OFFICE BUILDINGS IN CENTRAL BOSTON WITH MAP KEY

Key	Structure	Occupancy Date		Rentable Space
A	Prudential Tower Huntington Avenue	1963		1,200,000 SF
B	State Street Bank 225 Franklin	1965		800,000
C	State Office Building	1966		800,000
D	Center Plaza			
	I	1966		250,000
	II	1968		250,000
	III	1970		250,000
E	Federal Office Building Government Center	1967		860,000
F	New England Merchants National Bank	1968		820,000
G	Boston Comp. Building Washington, Court & State St.	1970		685,000
H	Prudential Tower #2 Huntington Ave.	1970	(under construction)	450,000
I	First National Bank	1971	(under construction)	1,100,000
J	Keystone Bldg.	1971	(under construction)	775,000
K	Employers' - Commercial 1 Beacon Street	Late 1972	(under construction)	1,100,000
L	John Hancock Building Coply Square Area	1972	(under construction)	1,700,000
M	Christian Science Church Administrative	1972	(under construction)	410,000
N	Cabot, Cabot and Forbes	1973	proposed	900,000
O	State Building Health, Welfare & Education	1973	(under construction)	850,000
P	Federal Reserve Bldg.	1974	proposed	1,0[illegible]

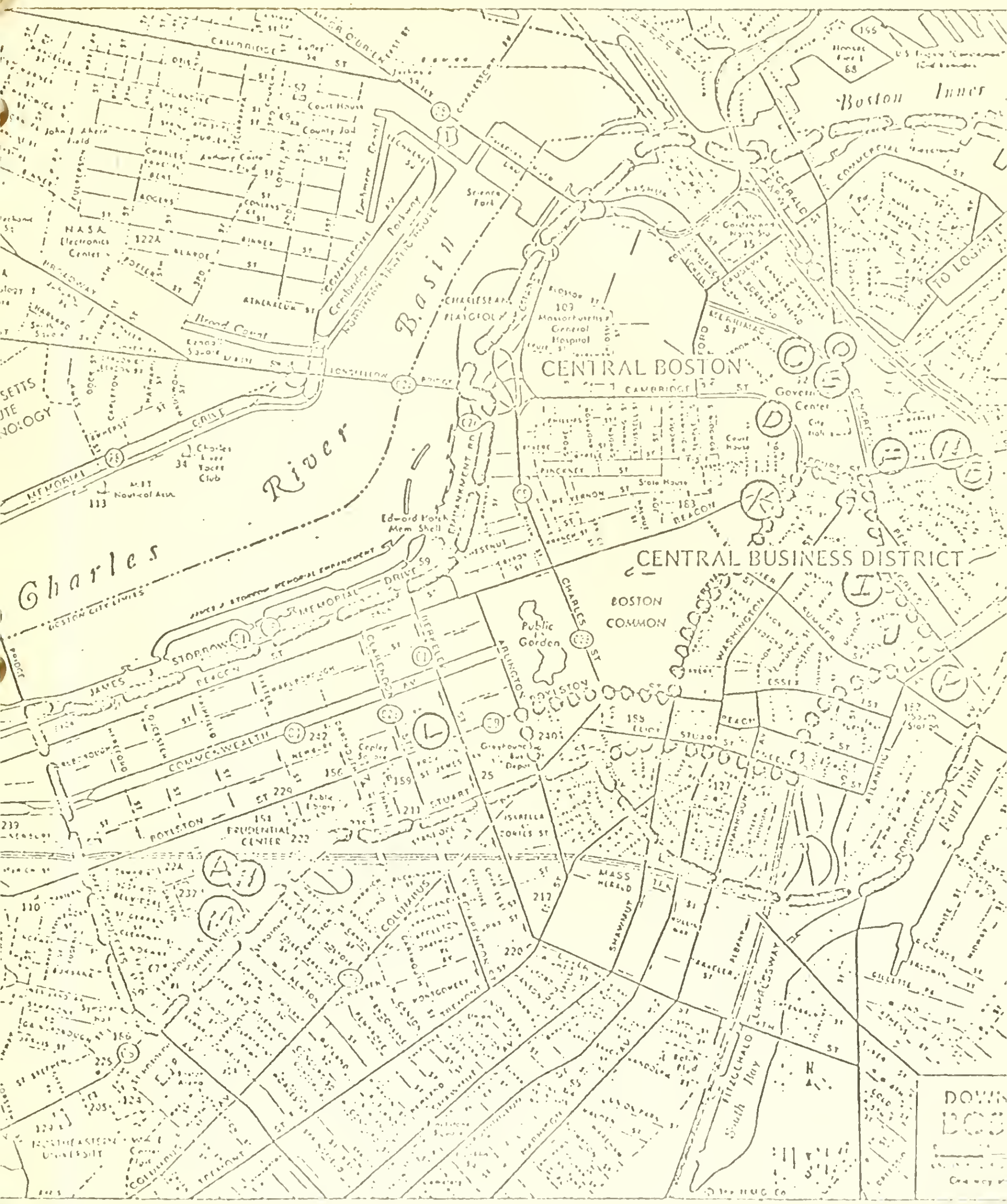
CENTRAL BOSTON
CENTRAL BUSINESS DISTRICT
BOSTON COMMON
Public Garden
Charles River Basin
Boston Inner
Massachusetts General Hospital
Science Park
Government Center
City Hall
Court House
State House
Edward Hatch Mem Shell
Copley Square
Prudential Center
Greyhound Bus Depot
NASA Electronics Center
Northeastern University
Broad Canal
Memorial Drive
Storrow Memorial Drive
South Bay
Fort Point
TO LOGAN

Table 10

PRIVATE OFFICE EMPLOYMENT
PERCENT BY OCCUPATION AND INDUSTRY 1/
[illegible]

Occupation	Government: Percent of Office Workers	Government: [illegible]	Government: [illegible]	Government: [illegible]	Services and Miscellaneous: Percent of Office Workers	Services and Miscellaneous: [illegible]	Services and Miscellaneous: [illegible]	Services and Miscellaneous: [illegible]	Finance, Insurance & Real Estate: Percent of Office Workers	Finance, Insurance & Real Estate: [illegible]	Finance, Insurance & Real Estate: [illegible]	Finance, Insurance & Real Estate: [illegible]
Professional & Technical	95%	31.4%	25.9%	27.4%	57%	27.6%	25.3%	29.0%	50%	5.6%	6.0%	6.6%
Managers & [illegible]	6[illegible]	5.8	6.1	4.4	90	4.8	4.5	4.1	90	14.8	14.2	21.5
[illegible]	85	33.3	27.8	25.1	93	13.9	13.9	13.9	90	53.7	53.9	52.1
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	15	0.9	0.9	0.9	53	16.3	15.3	14.3
[illegible] & Foremen	33	3.9	3.6	3.7	20	7.3	7.0	6.7	20	2.4	2.4	2.4
[illegible]	-	1.7	1.3	0.9	-	4.2	3.6	3.0	-	0.5	0.5	0.5
[illegible]	10	21.6	22.7	23.8	8	25.3	24.8	23.4	10	5.3	3.6	1.9
[illegible]	-	3.1	2.6	3.1	-	1.4	1.2	1.0	-	1.3	1.1	0.9
Total		100.0%	100.0%	100.0%		100.0%			100%			
[illegible] Percent of office workers/Industry		82.04%	82.47%	82.80%		39.47%	43.87%	42.07%		75.94%	77.22%	79.62%
[illegible] office workers in [illegible]/Industry		25.0%	25.0%	25.0%		50.0%	60.0%	60.0%		90.0%	90.0%	90.0%
Percent of [illegible] of office [illegible]		15.54%	15.47%	15.70%		31.22%	34.94%	33.62%		68.35%	70.03%	71.64%

Occupation	Wholesale/Retail Trade: Percent of Office Workers	Wholesale/Retail Trade: [illegible]	Wholesale/Retail Trade: [illegible]	Wholesale/Retail Trade: [illegible]	Transportation & Utilities: Percent of Office Workers	Transportation & Utilities: [illegible]	Transportation & Utilities: [illegible]	Transportation & Utilities: [illegible]
Professional & Technical	50%	2.9%	3.0%	3.7%	95%	5.6%	6.7%	7.2%
Managers & [illegible]	70	11.3	8.3	5.3	90	7.7	6.9	6.6
[illegible]	90	17.6	19.5	22.0	90	29.3	29.1	20.9
[illegible]	15	31.0	30.6	29.9	53	1.6	1.6	1.8
[illegible] & Foremen	20	8.5	9.5	10.5	15	20.6	20.1	27.2
[illegible]	-	11.8	11.7	11.6	-	25.8	26.3	26.6
[illegible]	10	13.6	14.1	14.6	10	3.8	3.6	3.2
[illegible]	-	3.2	3.1	2.9	-	7.3	6.2	3.3
Total	100%				100%			
[illegible] Percent of office workers/Industry		28.33%	30.07%	31.79%		42.14%	42.23%	42.43%
[illegible] office workers in [illegible]/Industry		60.0%	60.0%	60.0%		70.0%	70.0%	70.0%
Percent of [illegible] of office [illegible]		17.0%	18.04%	19.07%		29.50%	29.56%	29.22%

Occupation	Contract Construction: Percent of Office Workers	Contract Construction: [illegible]	Contract Construction: [illegible]	Contract Construction: [illegible]	Manufacturing: Percent of Office Workers	Manufacturing: [illegible]	Manufacturing: [illegible]	Manufacturing: [illegible]
Professional & Technical	82%	6.7%	7.7%	9.4%	95%	10.4%	12.7%	14.7%
Managers & [illegible]	90	9.3	9.3	9.3	[illegible]	6.4	4.4	4.7
[illegible]	90	3.6	4.8	8.0	[illegible]	13.3	11.1	10.7
[illegible]	60	0.4	0.5	6.6	20	4.3	4.5	4.8
[illegible] & Foremen	8	54.8	52.8	50.8	15	22.9	21.0	[illegible]
[illegible]	-	7.1	9.7	12.3	-	39.3	34.8	33.0
[illegible]	10	0.3	0.3	0.3	10	1.2	1.1	0.8
[illegible]	-	14.3	13.3	10.8	-	2.0	0.4	[illegible]
Total	100%				100%			
[illegible] Percent of office workers/Industry		21.52%	23.23%	24.9%		34.27%	[illegible]	[illegible]
[illegible] office workers in [illegible]/Industry		70.0%	70.0%	70.0%		50.0%	50.0%	50.0%
Percent of [illegible] of office [illegible]		15.06%	16.26%	17.44%		17.14%	[illegible]	[illegible]

1/ Source: a. [illegible] allocations: U.S. Dept. of Labor, BLS Bulletin No. 1599
b. [illegible], and percentage office workers in private buildings estimated by [illegible]

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